

PROJECT DESCRIPTION

I. General

This project involves the installation of anew traffic control signal with intersection lighting at the intersection of MD 5 and MD 249 in St. Mary's County, Maryland. MD 5 is assumed to run in a north-south direction.

II. Intersection Operation

This intersection is proposed to operate in a fully actuated mode with northbound MD 5 left turn lane operating as an exclusive/permmissive phase. Northbound and southbound MD 5 and eastbound MD 249 will operate concurrently, and eastbound MD 249 shall operate in an exclusive phase.

A NEMA eight (8) phase, full traffic actuated controller with two (2) four-channel rack mounted loop detector amplifiers with time delay output housed in a pole mounted cabinet shall be installed at this intersection.

III. Special Notes

1.

Maintenance of traffic will be handled by the contractor utilizing the following standard plates for traffic control: 104.00-28, 104.31-01, 104.32-01, 104.33-01, 104.34-01, 104.36-01.
2.

The following contact persons for District 5 are as follows:

Mr. Paul Armstrong
District Engineer
Phone (410) 841-5450

Mr. Lawrence Elliot
Asst. District Engineer-Traffic
Phone (410) 841-5450

Mr. Chuck George
Asst. District Engineer-Maintenance
Phone (410) 841-5450

Mr. John Mays
Asst. District Engineer-Utility
Phone (410) 841-5450

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone (410) 787-7630
3.

Upon completion of this project, the contractor shall notify Mr. Robert Snyder of SHA at (410) 787-7635 to arrange for the phone line installation. The contractor is to provide Mr. Snyder with the nearest street address, zip code, and phone number.

EQUIPMENT LIST

B. Equipment to be Furnish and/or Installed by the Contractor

ITEM NO.	QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
1001	1	EA	104	Maintenance of Traffic per assignment
5007	560	LF	555	6 in. yellow thermoplastic pavement marking tape
5008	495	LF	555	6 in. white thermoplastic pavement marking tape
5010	85	LF	555	24 in. white thermoplastic pavement marking tape
5012	5	EA	555	Thermoplastic pavement marking arrow
5013	1	LF	555	Remove existing pavement markings - any width
6002	70	LF	609	Standard Type A combination curb and gutter 12 in. gutter pan, 8 in. depth
8001	5.24	CY	801	Furnish and install concrete for signal foundation
8007	1	EA	805	³ / ₄ in. to 3 in. blind coupling, for traffic signal structures, welded and galvanized
8011	7	EA	814	Install signal head (ANY TYPE)
8016	2	EA	815	Furnish and install microloop probe set with 500 ft. lead-in
8017	2	EA	815	Furnish and install microloop probe set with 1000 ft. lead-in
8019	1	EA	816	Install controller and cabinet-pole mount
8021	480	LF	815	Furnish and install saw cut for signal (loop detector)
8023	40	LF	805	Furnish and install 1 in. liquid tight flexible non-metallic conduit for detector sleeve
8024	900	LF	805	Furnish and install 2 in. schedule 80 rigid PVC conduit-trenched
8026	20	LF	805	Furnish and install 2 in. schedule 80 rigid PVC conduit-bored
8027	80	LF	805	Furnish and install 3 in. schedule 80 rigid PVC conduit-trenched
8029	240	LF	805	Furnish and install 3 in. schedule 80 rigid PVC conduit-bored
8033	12	EA	811	Furnish and install electrical handhole
8034	1	EA	804	Furnish and install ground rod-3/4 in. diameter x 10 ft. length
8040	1200	LF	810	Furnish and install loop wire encased in flexible tubing (No. 14 AWG)
8041	200	LF	810	Furnish and install electrical cable - 2 conductor (aluminum shielded)
8044	80	LF	810	Furnish and install electrical cable - 5 conductor (No. 14 AWG)
8045	140	LF	810	Furnish and install electrical cable - 7 conductor (No. 14 AWG)
8046	50	LF	810	Furnish and install electrical cable - 2 conductor (No. 12 AWG) type "TC"
8049	20	LF	810	Furnish and install No. 6 AWG stranded bare copper ground wire
8050	500	LF	810	Furnish and install electrical cable 1 - conductor No. 4 AWG - THHN/THWN

EQUIPMENT LIST


B. Equipment to be Furnish and/or Installed by the Contractor

ITEM NO.	QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
8051	120	LF	812	Furnish and install wood sign supports 4 in. x 4 in.
8052	160	LF	812	Furnish and install wood sign supports 4 in. x 6 in.
8053	67	SF	813	Install ground mounted sign
8054	31	SF	813	Install overhead sign
8056	1	EA	806	Furnish and install 250 watt HPS luminaire with photocell
8057	1	EA	808	Furnish and install lighting bracket arm for traffic signal structure
8064	1	EA	SP	Use existing plan or disk and as-built traffic control device
8068	30	LF	810	Furnish and install 2 in. electrical conduit - PVC riser-schedule 80
8070	1	EA	807	Furnish and install control and distribution equip(120/240V, 1 phase 3 wire syst)
8084	1	EA	SP	Furnish and install mast arm pole and 70 ft. mast arm

EQUIPMENT LIST

A. Equipment to be supplied by the Administration.

ITEM NO.	QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
9001	6	EA	814	12 in. 1 way 3 section (R,Y,G) signal head mast arm mount.
9002	1	EA	814	12 in. 1 way 5 section (R,Y,G,YA,GA) signal head-mast arm mount.
9003	1	EA	816	Eight-phase (fully actuated controller and cabinet)-pole mount
9004	2	EA	xxx	Four-channel loop detector amplifier (delayed output)
9005	98	SF	813	Sheet aluminum signs consisting of:
	1	EA		R10-12, (36 in. x 42 in.) "Left Turn Yield on Green", mast arm mount.
	1	EA		R1-2, (36 in. x 36 in. x 36 in.)-ground mount
	1	EA		R3-5 (L), (36 in. x 36 in.) - mast arm mount
	2	EA		W3-3, new signal ahead, (48 in. x 48 in. - ground mount
	1	EA		W3-3, new signal ahead, (36 in. x 36 in.) - ground mount
	2	EA		D3-2, (var. x 16 in.) - Piney Point Road
	2	EA		R3-9b, (24 in. x 36 in.)
	1	EA		Special sign (30 in. x 24 in.)

REVISIONS	APPROVALS	<div> MARYLAND DOT - STATE HIGHWAY ADMINISTRATION <i>Office of Traffic & Safety</i> TRAFFIC ENGINEERING DESIGN DIVISION MD 5 AT MD 249</div>			
	ASST. DIVISION CHIEF, TEDD				
	ASST. DISTRICT ENGINEER, TRAFFIC				
	CHEF, TRAFFIC ENGINEERING DESIGN DIVISION				
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY				
		GENERAL INFORMATION SHEET 2 OF 2 DATE <u>7</u> / <u>7</u> / 97			
		DRAWN BY: <u>R. CICCHINI</u>	F.A.P. NO. <u>STPG-0005(494)E</u>	TRAFFIC SIGNAL NO.:	SHEET NO.
		CHECK BY: <u>NA</u>	S.H.A. NOS.: <u>PA1918453,AW127853,AW127853</u>	<u>3646</u>	<u>4</u> OF <u>5</u>
		SCALE:	COUNTY <u>ST. MARY'S</u>		